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New distributional and other bird records from Tatamá Massif, West Andes, Colombia

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The West Andes of Colombia have received comparatively little ornithological attention (Proyecto Biomap & Instituto Humboldt 2004). Avian inventories are available for a number of localities in dptos. Antioquia, Valle del Cauca, Cauca and Nariño (e.g. Echeverri 1986, Negret 1994, Salaman 1994, Hilty 1997, Donegan & Dávalos 1999, Cuervo *et al.* 2003, Krabbe *et al.* 2004). In recent years, several

previously undescribed bird species have been discovered in this cordillera (e.g. Salaman & Stiles 1996, Robbins & Stiles 1999) and many range extensions have been noted (e.g. Salaman 1994, Donegan & Dávalos 1999, Cuervo *et al.* 2003, Downing & Hickman 2004, Krabbe *et al.* 2006). The efforts of others, e.g. G. Kattan (Kattan *et al.* 1994) and H. Álvarez (Stiles & Alvarez-Lopez 1995), have also brought a better understanding of some species' ranges. Ornithological surveys in the vicinity of Tatamá National Natural Park have been few, though dating from 1909 (Hellmayr 1911), more recently to the north at Alto de Pisones, on the west slope in dpto. Risaralda (Salaman & Stiles 1996, Stiles 1998), and finca Providencia, municipality of Pueblo Rico, dpto. Risaralda, below the park limits (SC-C unpubl.). However, no ornithological surveys have been conducted within the park (Franco & Bravo 2005).

Seventeen Important Bird Areas (IBAs) have been delimited on both slopes of the West Andes (Boyla & Estrada 2005), including five national natural parks, but protected areas are patchily distributed and do not cover a complete altitudinal gradient. Many are subject to deforestation and illegal colonisation, making conservation action even more urgent. Mid elevations on the west slope of the West Andes (mainly 500–1,800 m) urgently require effective conservation, as many Pacific-slope endemics (at least 67) favour this altitudinal range (Córdoba 2001). Forest habitats are declining at an alarming rate on the west slope of the Andes and in adjacent lowlands. Infrastructural developments such as the proposed highway to the Pacific port of Nuquí-Tribuga (in the Chocó lowlands) threaten to increase such deforestation. Bird populations are being fragmented, especially on montane slopes, whilst our knowledge of the distributions, biology and ecology of endemics and threatened species in the region is poor, making appropriate conservation measures impossible to design with confidence.

The 'Grupo de Exploración y Monitoreo Ambiental' (GEMA) of the Instituto de Investigación de Recursos Biológicos Alexander von Humboldt (IAvH), as part of the 'Conservación y uso sostenible de la biodiversidad de los Andes Colombianos' project, conducted biological inventories on 21–29 August 2004 in Tatamá National Natural Park, dpto. Risaralda. A total 45.8 man-hours of observations and recordings, and 1,184 mist-net/hours were conducted during bird surveys exclusively in forest. Of the 116 species of 31 families identified, tanagers, followed by flycatchers and hummingbirds, were the commonest groups. All sound-recordings have been deposited in the Banco de Sonidos Animales (BSA-IAvH), skins and spirits in the 'Colección de Vertebrados Jorge Hernández-Camacho' (IAvH), Villa de Leyva, Boyacá, and tissue samples at the 'Banco de Tejidos' (IAvH), Palmira Facility, Valle del Cauca.

We present new geographical or altitudinal records, confirmation of presence for some species, and comments on taxa endemic to the West Andes or threatened species. A complete list of all species recorded will be published elsewhere and is available on request from the authors. Taxonomy and nomenclature follow Remsen *et al.* (2006).

Study sites

Two localities were surveyed in Tatamá National Natural Park, dpto. Risaralda, municipality of Pueblo Rico, vereda La Cumbre. High-Andean montane forest covers the area, with evidence of some selective logging and hunting. The first site was accessed by a 20-minute drive from the refuge at Planes de San Rafael Nature Reserve (municipality of Santuario), north to quebrada Risaralda, followed by a one-hour walk upslope. The second site was two hours walk from the first, along the mountain ridge to 2,650 m.

Site 1 (05°09'N, 76°01'W) is on the west slope of the West Andes, at 2,200–2,400 m, near the ridge and c.20 km from Santuario municipality. Continuous forest covers the steep terrain (20–30° slopes), the understorey is not dense, reaching 9–12 m high, with a 15–18 m-high canopy, and emergents up to 30 m. Some of the commonest families are Meliaceae, Lecythidaceae, Cunnoniaceae, Sabiaceae, Clusiaceae and Hippocastanaceae (A. Prieto *in litt.* 2006).

Site 2 (05°08'N, 76°02'W) lies on the ridge at 2,600–2,800 m and c.25 km from Santuario municipality. Continuous forest covers the rather gentler slopes at this site. Floristic composition and vegetation structure were very similar in general to Tatamá site 1, but with a denser understorey and taller canopy of up to 20–24 m (A. Prieto *in litt.* 2006).

Major range extensions

WHITE-THROATED SCREECH-OWL *Megascops albogularis*

Heard at both sites and occasionally near Planes de San Rafael refuge, at 2,000 m, during the late afternoon. Previously reported in the West Andes in dpto. Cauca (Hilty & Brown 1986) and at Páramo de Frontino, dpto. Antioquia (Krabbe *et al.* 2006), respectively c.250 km south and c.150 km north of our study site.

RUFIOUS-BANDED OWL *Ciccaba albitarsis*

Two observed and sound-recorded pre-dawn at site 1. Previously known in the West Andes at Cerro Munchique and Tambito, dpto. Cauca (Hilty & Brown 1986, Donegan & Dávalos 1999), and at Páramo de Frontino (Krabbe *et al.* 2006), c.290 and c.150 km from Tatamá. Our record closes the gap between these localities, suggesting a more continuous distribution in the West Andes.

FAWN-BREASTED BRILLIANT *Heliodoxa rubinoides*

A male and juvenile collected at site 1. Very few localities in the West Andes, one just above Cali (Hilty & Brown 1986), and common in Tambito Nature Reserve and on the adjacent east slope in Cauca (Donegan & Dávalos 1999). Recently recorded in south-west Antioquia, in the municipality of Caicedo (Cuervo *et al.* 2003). Our record closes the c.450-km gap between the Valle and Antioquia records, suggesting the species' range is continuous in the West Andes.

TOURMALINE SUNANGEL *Heliangelus exortis*

Several trapped and tape-recorded at site 2. Two males, a female and two unsexed individuals were collected. Like the previous species, previously known in this cordillera from sites in Valle del Cauca (Hilty & Brown 1986), Cauca (Donegan & Dávalos 1999) and Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). Again, our record fills a c.450-km gap and suggests a continuous range in the West Andes.

TYRIAN METALTAIL *Metallura tyrianthina*

Observed at site 1, and sound-recorded and trapped at site 2, with a male and juvenile collected. Previously known from sites c.150 km to the north in Antioquia (Hilty & Brown 1986, Krabbe *et al.* 2006) and c.290 km south in Cauca (Hilty & Brown 1986, Donegan & Dávalos 1999).

LONG-TAILED SYLPH *Agelaiocercus kingi*

A. kingi was common at 2,650 m, with several mist-netted, of which a male with a brood patch and female were collected. At site 1, *A. coelestis* was common (and a female collected), but *A. kingi* was not recorded there, suggesting that they replace each other between the two sites. Nearby, mainly below 2,000 m, *A. coelestis* was also common at finca Providencia, Pueblo Rico (05°10'N, 76°04'W) (SC-C unpubl.). Although the species' presence has long been suspected throughout the West Andes, published records exist only from dptos. Nariño north to Valle del Cauca, and in Antioquia (Hilty & Brown 1986, Donegan & Dávalos 1999, Cuervo *et al.* 2003).

WHITE-FACED NUNBIRD *Hapaloptila castanea*

This rare puffbird was recorded at both sites; most observations involved singles perched inconspicuously. More frequent at site 1, where a group of three was observed in the subcanopy, giving short hoot-like calls and flying short distances (5–10 m). More conspicuous at dawn by voice, but may sing all day. *H. castanea* has been reported at 750–2,400 m on the west slope of the cordillera, with records at low passes on the east slope (Hilty & Brown 1986), and is also local and uncommon in Ecuador (Ridgely & Greenfield 2001). Hilty & Brown (1986) depict a continuous distribution in the West Andes, but all published localities are in dptos. Antioquia, Cauca and Nariño (Miller 1963), with the only recent record in Munchique, where it was considered rare (Negret 1994). Our discovery represents an upslope range extension of c.200 m.

PEARLED TREERUNNER *Margarornis squamiger*

A female with a furcular full of fat deposit and an unsexed individual collected at site 2. Previously reported for this cordillera from Parámo de Frontino, north-west Antioquia (Krabbe *et al.* 2006), the municipality of Jardín, on the east slope in the same department (Cuervo *et al.* 2003), and Tambito Natural Reserve, dpto. Cauca (Donegan & Dávalos 1999). Ours is the first record for dpto. Risaralda.

BICOLOURED ANTVIREO *Dysithamnus occidentalis*

Four tape-recorded and observed at site 1, whilst four others were trapped and two more escaped from the mist-net. At site 2, three males, two females and a juvenile were collected (the juvenile, a female and male were trapped together). All showed evidence of body- and wing-feather moult. Poorly known in Colombia, the species has been reported in the south-west, from dpto. Valle del Cauca south to Nariño and Ecuador (Renjifo *et al.* 2002). In Ecuador, subspecies *punctipectus* is present at 1,000–1,600 m on the west slope of the Cordillera del Cóndor (Ágreda *et al.* 2005). Taxonomy and relationships unclear; the species was previously placed in *Thamnomanes*, or as a subspecies of *Thamnophilus aethiops* (Remsen *et al.* 2006), whilst its biological and ecological requirements are also largely unknown. Parker *et al.* (1996) considered it of conservation concern, and BirdLife International (2004) and Renjifo *et al.* (2002) as Vulnerable at global and national levels, despite the paucity of data. Our records represent a northward range extension of *c.*200 km in Colombia and an altitudinal range extension of *c.*400 m.

SCHWARTZ'S ANTTHRUSH *Chamaeza turdina*

At least two tape-recorded and seen in dense understory on all days at site 1, responding to playback. The species is easily identified and more regularly encountered by voice. Natural vocalisations were most frequently heard early morning. It was also heard at dawn near the refuge at Planes de San Rafael, on the east slope of this cordillera. Ours are the first records for the West Andes and confirm its presence on both slopes of the cordillera.

RUFOUS ANTPITTA *Grallaria rufula*

A female collected at site 1 resembles nominate *rufula* in plumage and thus individuals from the East Andes (Hilty & Brown 1986). However, subspecies (and species) limits in *G. rufula* are under discussion. Previously known in the West Andes only from northern Antioquia (Hilty & Brown 1986, Krabbe *et al.* 2006), *c.*200 km to the north, and *c.*200 km to the south at Farallones de Cali, Valle del Cauca (Hilty & Brown 1986).

BARRED FRUITEATER *Pipreola arcuata*

One seen in the subcanopy, and a male and female collected together at site 2. Both had enlarged and active gonads, with a visible brood patch. The female had no atresic follicles and much greater furcular and flank fat deposits. Nearest records are from Munchique, dpto. Cauca, *c.*290 km to the south (Hilty & Brown 1986), and Las Orquídeas National Natural Park, *c.*130 km to the north (Echeverri 1986).

RUFOUS-BREASTED FLYCATCHER *Leptopogon rufipectus*

Three sound-recorded and observed at site 1, which becomes the third known locality in the West Andes and represents a range extension of *c.*170 km to the south from Las Orquídeas National Natural Park (Echeverri 1986) and *c.*150 km from Páramo de Frontino (Krabbe *et al.* 2006).

RUFOUS-HEADED PYGMY-TYRANT *Pseudotriccus ruficeps*

Mist-netted at both sites and two were collected. Tape-recorded giving short trills and bill-snaps, presumably in group contact or territorially. Found in forest understorey, mainly in vegetation less than 1 m high with ground cover almost 100% ferns. Records for the West Andes are from Cauca (Donegan & Dávalos 1999), Valle del Cauca (Hilty & Brown 1986) and Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). Our records represent a midpoint in the species' range in the cordillera, where it is probably continuously distributed.

SMOKY BUSH-TYRANT *Myiotheretes fumigatus*

Singles observed and tape-recorded at both sites, on exposed branches near the canopy in a small forest clearing on the ridge, or on a taller emergent on a steep slope. Our records represent a northerly range extension of c.300 km from Cauca (Hilty & Brown, 1986) and c.150 km from Parámo de Frontino, Antioquia (Krabbe *et al.* 2006).

CITRINE WARBLER *Basileuterus luteoviridis*

One collected at site 2 and another four escaped from the mist-net. Previously known from the West Andes at Parámo de Frontino, Antioquia, and Munchique, Cauca (Hilty & Brown, 1986). Tatamá is c.150 km south of Frontino and c.290 km north of Munchique, suggesting the species is more continuously distributed through the cordillera, albeit restricted to high-elevation remnant forests above 2,000 m. Probably very local, as at several sites in the Central and East Andes it is abundant at some sites but almost absent from others nearby (MAE-G & SC-C pers. obs.).

GOLDEN-HOODED TANAGER *Tangara larvata*

Five were seen in a mixed-species flock along with other tanagers at site 1. Previously known to 1,800 m (Hilty & Brown, 1986), our record increases its altitudinal range by c.400 m.

RED-HOODED TANAGER *Piranga rubriceps*

One observed in a mixed-species flock in treetops at site 1. Previous records are from Cauca (Donegan *et al.* 2002), Valle del Cauca (Hilty & Brown 1986) and Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006).

RUFOUS-CRESTED TANAGER *Creurgops verticalis*

One was observed foraging mainly in treetops at site 1. Scattered records are available from the Central and West Andes (Hilty & Brown 1986), in Nariño, Valle del Cauca and north-west Antioquia in the latter cordillera. Echeverri (1986) collected a male in the southern part of Frontino, in Las Orquídeas National Natural Park, but neither Cuervo *et al.* (2003) or Krabbe *et al.* (2006) recorded the species there.

YELLOW-THROATED BUSH-TANAGER *Chlorospingus flavigularis*

One seen at close range, foraging for insects on small branches, leaves and an inflorescence, at site 1. Previously recorded in the northernmost West Andes on the upper río Sinu (c.250 km to the north) (Hilty & Brown 1986) and Las Orquídeas National Natural Park (c.160 km) (Echeverri 1986); and c.125 km to the south in Valle del Cauca, and south to Nariño (Hilty & Brown 1986). Recorded to 1,650 m (Las Orquídeas), thus our observation closes the gap between these records and is an altitudinal extension of c.600 m in the West Andes. The race concerned was probably *C. f. marginatus*, due to the extent of yellow on the throat-sides, but confirmation is lacking.

PLUSH-CAPPED FINCH *Catamblyrhynchus diadema*

Mist-netted in dense bamboo at both sites, a range extension of c.200 km from Valle del Cauca to the south (Hilty & Brown 1986) and c.150 km from Páramo de Frontino to the north (Krabbe *et al.* 2006).

TANAGER-FINCH *Oreothraupis arremonops*

Four were observed, tape-recorded and mist-netted at site 2, and a male and juvenile were collected. According to Renjifo *et al.* (2002), this species is known in Colombia from Antioquia, c.160 km north of our study site, and in Valle del Cauca, Cauca and Nariño, the first c.200 km to the south. In Colombia, Tanager-finch is mainly observed in national natural parks or protected areas of mature forest, suggesting it is sensitive to disturbance. It is endemic to the western slope of the West Andes and the main Andean range, south to Pichincha and Imbabura, Ecuador (BirdLife International 2004). Due to habitat loss, the species is considered Vulnerable globally and nationally (Renjifo *et al.* 2002, BirdLife International 2004).

SLATY FINCH *Haplospiza rustica*

Six mist-netted at site 1 (two males, one subadult and three females); a female collected had an egg in formation in the upper oviduct. According to Sánchez (2005), the species is strongly tied to seeding bamboo *Chusquea*, which seems to regulate its breeding period, but the bamboo in Tatamá was not clearly in seed. The species' range in Colombia is poorly known, perhaps due to its unpredictable occurrences (Salaman *et al.* 2002), but it occurs in all three cordilleras. For the West Andes, it has been recorded in Valle del Cauca and Cauca, c.200 km south of Tatamá, with observations at Cerro Munchique and Tambito (Hilty & Brown 1986, Donegan & Dávalos 1999).

Minor range extensions

White-throated Quail-dove *Geotrygon frenata*.—Tape-recorded and seen at both sites, *G. frenata* was common at site 1. The Tatamá Massif appears to be its northernmost limit in this cordillera, where it mainly occurs below 2,500 m (in the

Central Andes, there is a record at 3,300 m from Parque Regional Natural Ucumari). The species' altitudinal and geographic range is surely more continuous. **Andean Pygmy-owl** *Glaucidium jadinii*.—A male in heavy body- and flight-feather moult and with fully ossified skull was collected at site 1. Measurements and general coloration corresponded to *G. jadinii* rather than the recently described *G. nubicola* (Robbins & Stiles 1999). In the West Andes known from Cerro Torrá (50 km to the south) (Hilty & Brown 1986), and in Cauca and Antioquia (Donegan & Dávalos 1999, Krabbe *et al.* 2006). **Mottled Owl** *Ciccaba virgata*.—Seen and sound-recorded pre-dawn at site 1. Typically found in the Central Andes below 2,000 m (Hilty & Brown, 1986), making our record a small altitudinal extension, to 2,200 m. A more continuous distribution to the north seems likely. **Speckle-faced Parrot** *Pionus tumultuosus*.—Pairs observed in flight twice at site 1 and once at site 2, the second locality in the West Andes, after that in Antioquia (Cuervo *et al.* 2003). **Chestnut-collared Swift** *Streptoprocne rutila*.—Flocks over site 1 and the steep valley of quebrada Risaralda. Few localities in the West Andes, though perhaps more common than appears in the literature, and is probably continuously distributed through the entire range. **Green Violet-ear** *Colibri thalassinus*.—Two tape-recorded near the treeline at site 1. As noted by Cuervo *et al.* (2003), probably largely restricted to the east slope in this cordillera, only occasionally penetrating to the west via low passes, e.g. just north of Tatamá and at Tambito, Cauca (Donegan & Dávalos 1999). **Masked Trogon** *Trogon personatus*.—Several seen and tape-recorded at both sites, but more abundant at 2,650 m. In the West Andes mainly to 2,500 m (Echeverri 1986, Hilty & Brown 1986), once to 3,300 m (Krabbe *et al.* 2006). **Striped Treehunter** *Thripadectes holostictus*.—Several tape-recorded and one seen at close range at site 1. In the West Andes, until recently considered to reach north only to dpto. Cauca (Hilty & Brown 1986), but since found near Jerico, c.80 km from Tatamá (Cuervo *et al.* 2003), and Parámo de Frontino (Krabbe *et al.* 2006). Streak-capped Treehunter *T. virgaticeps* was also recorded at both sites, being commoner than *T. holostictus* at site 1. **Uniform Antshrike** *Thamnophilus unicolor*.—Frequently sound-recorded at site 1. Observed alone or in flocks of up to five. Probably more widespread in the West Andes than known. **Chestnut-naped Antpitta** *Grallaria nuchalis*.—Several responded vigorously to playback and were observed and tape-recorded at site 2. Third locality in the West Andes, after those in Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). Appears rather less common at Tatamá than in the Central Andes at 2,200–3,000 m. **Slate-crowned Antpitta** *Grallricula nana*.—Several tape-recorded, observed and mist-netted at site 2. Three collected were all in heavy moult of flight- and body-feathers, and some juveniles still had vinaceous-rufous down feathers. Known from Valle del Cauca (Hilty & Brown 1986) and Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006), our record suggests a more continuous distribution in the West Andes. **Ocellated Tapaculo** *Acropternis orthonyx*.—Two tape-recorded and one observed at site 2, the third locality for the West Andes after those in Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Black-capped Tyrannulet** *Phyllomyias nigrocapillus*.—

Several tape-recorded and two collected, of which a male was in heavy moult in the flight-feathers, at site 2. Tatamá represents a midpoint in its range, with records to the north from three localities in Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006), and to the south in Valle del Cauca. **Flavescent Flycatcher** *Myiophobus flavicans*.—Individuals and pairs observed at site 1, regularly joining mixed-species flocks on the ridge. Reported by Cuervo *et al.* (2003) at nearby Alto de Pisones and further north in Antioquia, and to the south known from northern Valle del Cauca and Cauca. **Yellow-bellied Chat-tyrant** *Ochthoeca diadema*.—Mist-netted and tape-recorded at both sites, and two collected. Reported for Nariño and Valle del Cauca, c.200 km to the south, and to the north in Antioquia (Echeverri 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Pale-edged Flycatcher** *Myiarchus cephalotes*.—Two observed and tape-recorded at forest borders between quebrada Risaralda and upslope towards site 1. More common than previously noted in the West Andes, it probably favours forest edges and streams on slopes (Cuervo *et al.* 2003). **Sharpe's Wren** *Cinnycerthia olivascens*.—Groups seen and tape-recorded foraging in the understorey, sometimes in small stands of *Chusquea*, at both sites, and common in mixed-species flocks. Scattered reports in the West Andes (Echeverri 1986, Hilty & Brown 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Chestnut-breasted Wren** *Cyphorhinus thoracicus*.—Family groups of 3+ tape-recorded at site 1, and two collected at site 2. Previous records in the West Andes are for dptos. Valle del Cauca and Cauca to the south, Alto de Pisones, Risaralda (Cuervo *et al.* 2003) and Las Orquídeas, Antioquia (Echeverri 1986). **White-capped Tanager** *Sericossypha albocristata*.—Tape-recorded and observed at both sites in groups of 4–12. Hilty & Brown (1986) noted its presence only in the Central and East Andes, but since found at two localities in Antioquia (Cuervo *et al.* 2003, Krabbe *et al.* 2006). Suitable habitat exists both north and south of Tatamá and the species may occur throughout much of the cordillera in montane forest. **Grey-hooded Bush-tanager** *Cnemoscopus rubrirostris*.—Observed, mostly in mixed-species flocks, in the treetops and subcanopy at site 2; rarely in lower strata. A male with an active brood patch collected. Sparsely distributed in all three ranges with, in the West Andes, records from Cauca (Hilty & Brown 1986) and Antioquia (Echeverri 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Black-capped Hemispingus** *Hemispingus atropileus*.—A group observed at site 1 and, at site 2, four were captured, of which a female and subadult were collected. Previously reported in the West Andes in Cauca, at Munchique c.290 km south, and Antioquia c.65 km to the north (Donegan & Dávalos 1999, Echeverri 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006). **Mountain Cacique** *Cacicus chrysonotus*.—Observed and tape-recorded at site 2, foraging in small mixed-species flocks. Previously reported in the south of the cordillera, in Valle del Cauca, and further north, in Antioquia (Echeverri 1986, Hilty & Brown 1986, Cuervo *et al.* 2003, Krabbe *et al.* 2006), suggesting a continuous distribution in the West Andes.

Endemics and threatened species

Chestnut Wood-quail *Odontophorus hyperthyrus*.—At least two groups tape-recorded at site 1 and one at site 2. This endemic occurs on both slopes of the Central and West Andes, at 1,400–2,700 m (Hilty & Brown 1986, Salaman *et al.* 1999), and is Near Threatened nationally (Renjifo *et al.* 2002) and globally (BirdLife International 2004), due to habitat loss and hunting. **Black-billed Mountain-toucan** *Andigena nigristrois*.—Lone individuals observed vocalising from the canopy and twice following mixed-species flocks. Sympatric with Emerald Toucanet *Aulacorhynchus prasinus* at both sites, but never observed in the same flocks. Emerald Toucanet was commoner at site 1 whilst *A. nigristrois* was equally abundant at both. *A. nigristrois* is Near Threatened in Colombia due to extensive habitat loss with, at least in some areas, decreasing populations (Renjifo *et al.* 2002). **Purplish-mantled Tanager** *Iridosornis porphyrocephala*.—c.10 of this nationally and globally Near-Threatened species (Renjifo *et al.* 2002, BirdLife International 2004) were seen and two collected; apparently commoner at site 2. **Dusky Bush-tanager** *Chlorospingus semifuscus*.—This endemic was tape-recorded, mist-netted and collected at both sites, but more frequently at site 2. Sang mainly on the ridge at 2,600 m and above. Previously reported to 2,500 m (Isler & Isler 1999), but where ridgetop forests are suitable for ‘lekking’ (Bohórquez & Stiles 2002) likely to occur considerably higher. **Red-bellied Grackle** *Hypopyrrhus pyrohypogaster*.—This endemic is categorised as Endangered both nationally (Renjifo *et al.* 2002) and globally (BirdLife International 2004). Commonly seen in small groups of 6–8, some birds calling from the 20–22 m canopy whilst others probed for insects under branches and leaves down to mid level. One group was seen regularly near quebrada Risaralda at c.2,000 m.

Concluding remarks

Many species in the West Andes have broader ranges than indicated in the mainstream literature, as noted here and by other studies (e.g. Echeverri 1986, Donegan & Dávalos 1999, Cuervo *et al.* 2003), particularly north of dpto. Valle del Cauca. However, some species’ ranges remain unclear in several parts of this cordillera. Some birds at the elevations we surveyed may be widespread at higher elevations, but had not been recorded earlier due to lack of appropriate field work, or may be present on both slopes. Further surveys around the lower passes, e.g. that just north of Tatamá, between Risaralda and Antioquia, would be welcome. We found 21 species whose ranges are extended north or south, five at higher elevations than previously known, and one not previously reported in the West Andes. Amongst our range extensions are two species endemic to the West Andes, two globally threatened (*Oreothraupis arremonops* and *Dysithamnus occidentalis*) and three Near-Threatened species. Many of the national natural parks in the West Andes are sited at higher elevations, including Tatamá, making an evaluation of the efficiency of the protected areas network in conserving existing biodiversity much

needed. Future surveys and conservation plans should also focus on the lower montane and premontane slopes which remain little-protected.

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